



Publication date: 21st August 2013

Change Correction Source on Seatex DPS110/112

Affected services **SEASTAR**

Introduction

This document describes how to check and change the correction source (satellite beam) being tracked by a Seatex DPS110/DPS112 GPS/GNSS receiver.

Background

Kongsberg Seatex DPS110 and DPS112 both include an internal Fugro demodulator that is designed to receive correction signals from geostationary satellite(s). The demodulator must be configured to track the correct satellite for the vessel's area of operation or positioning accuracy is dramatically downgraded. This document is based on the latest internal system software (firmware). For assistance with updating firmware please contact the manufacturer (Kongsberg Seatex AS).

Satellite beams

To find what beam you should use you can use the planning web application at <http://www.starfix.com>. As well as giving each satellite's elevation and azimuth it will show the distance to the reference stations.

In the table you will find the name and frequency for the different satellite beams that are used for transmitting correction signals.

Beam	Frequency (MHz)	Symbol Rate (kHz)	Bit Rate (bps)	Available on Inmarsat System
ASAT	1539.9325	2438	1200	Fleet Broadband
AORW	1539.9625	1219	600	Inmarsat-B
ESAT	1539.9125	2438	1200	Fleet Broadband
AORE	1539.9725	1219	600	Inmarsat-B
IOR	1539.9325	2438	1200	Inmarsat-B
AUSAT	1539.9625	2438	1200	Fleet Broadband
POR	1539.9525	1219	600	Inmarsat-B

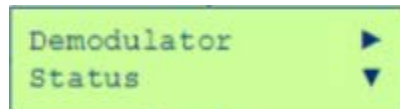
Note that if the demodulator is connected to an Inmarsat terminal you must tune the beam to the same as the Inmarsat terminal. All beams are available for spotbeam systems.

Change frequency and symbol rate

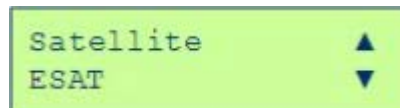
Press **ESC** key several times until the position is shown on the **home screen** display

Use **↓** until the display shows **Demodulator**, then press **→**.

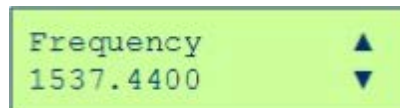
Then use **↓** until you see *status* on the lower line



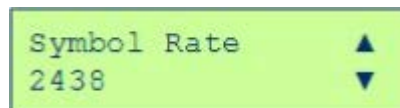
Use **↓** until the display shows **Satellite** in the upper line. The second line will show the satellite beam name



Use **↓** again to see the specific **Frequency** being used. Confirm that this frequency is correct according to the area of operation and the beam table overleaf



Use **↓** once more to see the **Symbol Rate**. Confirm that this is correct for the satellite the DPS is tracking

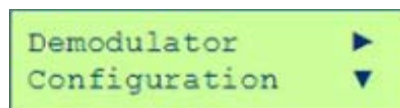
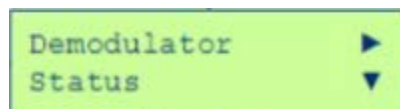


Change satellite beam

Press **ESC** key several times until the position is shown on the **home screen** display

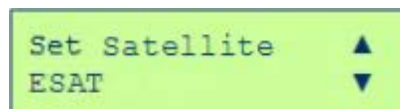
If you need to change the beam you can use **↓** until the display shows **Demodulator** on the upper line and *Status* in the lower line

Use **→** to enter the demodulator **Configuration** menu

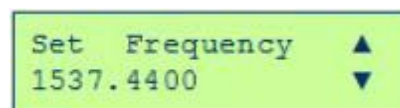



Use **↓** until the upper line shows **Set Satellite**. Press the **ENTER** key and select the satellite beam with **↑** and **↓**

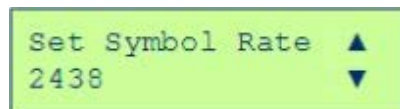
Save **ENTER**



If you have set it to Manual you must set the frequency yourself. Press **↓** until you see **Set Frequency** then press **ENTER**. Use **↑** and **↓** to change each individual number and **←** and **→** to change the cursor position



Verify the Symbol Rate is correct according to the satellite you are trying to lock on to. Use **↓** until the screen shows **Set Symbol Rate**. Then edit by pressing the **ENTER** key



For addition information on this receiver refer to the DPS110/DPS112 user manual or contact Kongsberg Seatex AS.

For further support regarding this technical bulletin, contact FSP Support (seastarservice@fugro.com) or technical duty phone (+47 21 50 14 20)